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TWO NEW NORTH AMERICAN SPECIES OF THE TRIBE PEMPHREDONINI (HYMENOPTERA: SPHECIDAE: PEMPHREDONINAE)

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Abstract.—Two new species in the sphecid subfamily Pemphredoninae are described: *Pemphredon bocae,* NEW SPECIES and *Cemonus menkei,* NEW SPECIES. These are from western U.S. and eastern U.S., respectively.

Key Words.—Sphecidae, Pemphredoninae, *Pemphredon, Cemonus*

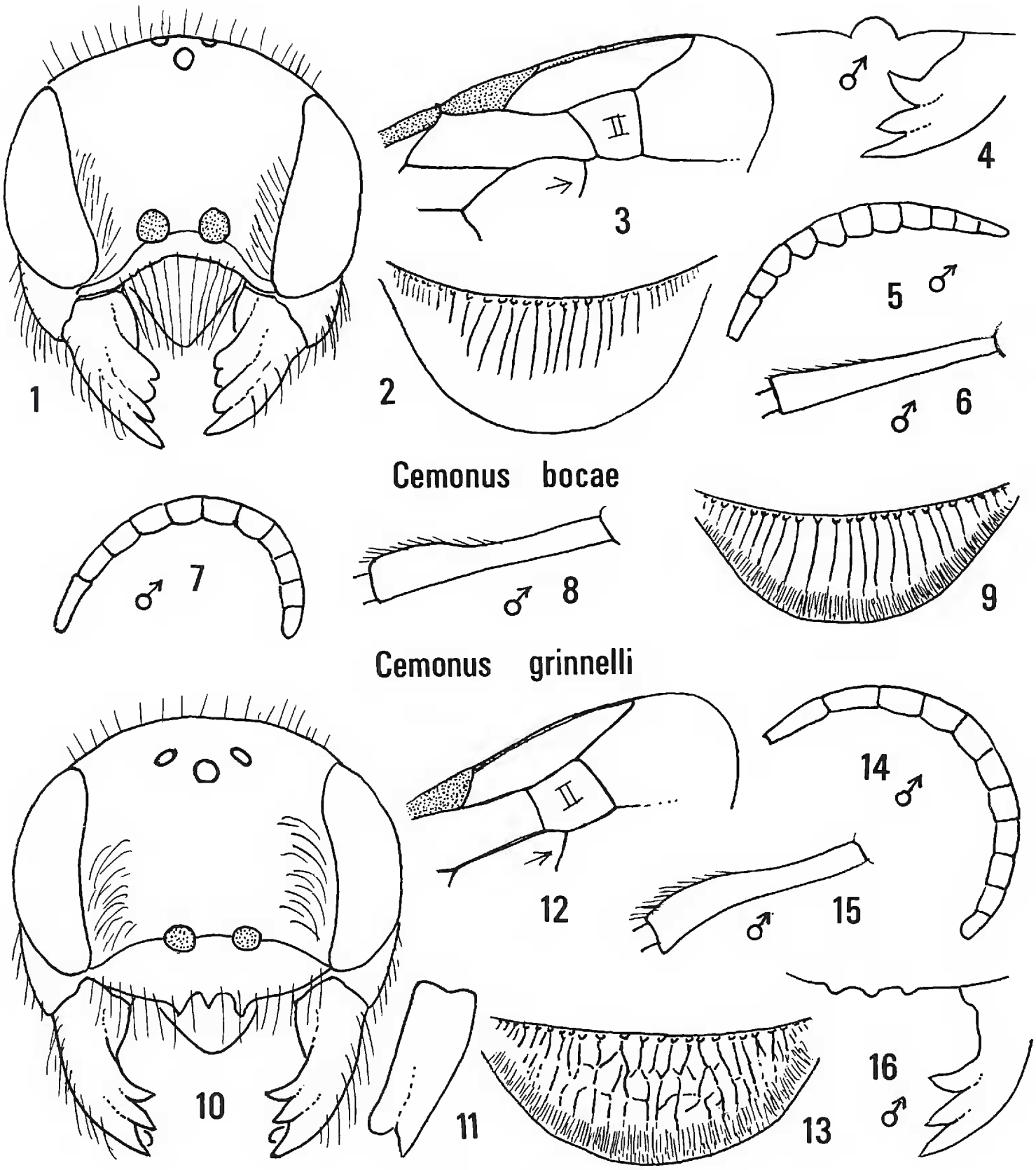
The tribe Pemphredonini contains a number of genera, two of which are *Pemphredon* and *Cemonus.* They have often been placed as subgenera under the former name. However, the two entities appear to be separate phylogenetically, and they can be distinguished by the reception of the second recurrent vein of the forewing at, or before, the proximal end of submarginal cell II in *Cemonus,* and well beyond in *Pemphredon* (compare Figs. 3 and 12). One species in each genus is presented below.

CEMONUS BOCAE, NEW SPECIES
Figs. 1–6

Types.—Female holotype. CALIFORNIA. *NEVADA Co.:* Boca, 12 Aug 1974, R. M. Bohart. Holotype deposited in the Bohart Museum of Entomology, University of California, Davis. Paratypes: 1 male, 6 females, data: CALIFORNIA. *MONO Co.:* Mill Creek Canyon, 26 Aug 1979, M. Wasbauer, P. Adams, 2 females. *NEVADA Co.:* same data as holotype, 1 female. *PLACER Co.:* nr Tahoe City, 29 Jun 1979, P. Adams, 1 female. *SIERRA Co.:* Sierraville, 28 Jun 1966, R. L. Brumley, 1 male; same locale, 14 Jul 1958, R. M. Bohart, 1 female. IDAHO. *BUTTE Co.* (?): Little Cottonwood Creek, Craters of the Moon National Monument, 13 Aug 1965, D. S. Horning Jr., 1 female. (Paratypes to be distributed in the future.)

Female.—Holotype length 7.5 mm; black wings slightly and evenly stained. Pubescence pale, that from clypeus and propodeum long. Punctation fine and close on frons, but becoming widely separated by extensive polished areas on vertex; punctation fine, but sparse on scutum, moderate on propodeum beyond enclosure, coarse on mesopleuron, but becoming polished posteriorly and ventrally as well as on propodeal enclosure posteriorly (Fig. 2). Mandible with 4 dorsal teeth, basal 2 almost completely fused (Fig. 1); clypeus with apical margin very broadly emarginate, rim almost reaching antennal sockets (Fig. 1); vertex dimpled behind ocellar triangle; propodeal enclosure with about 20 fine and close longitudinal ridges (Fig. 2); pygidial plate a nearly even rectangle, 2× as long as broad.

Male.—Length 7 mm; wings, punctation, dimpled vertex, color and propodeal sculpture as in female. Facial pubescence dense, silvery. Mandible with most basal tooth enlarged and slightly angled inward (Fig. 4); flagellomeres III–VII strongly swollen beneath giving a serrated appearance (Fig. 5); clypeal apex narrowly, deeply, and roundly emarginate (Fig. 4); midbasitarsus straight, and gradually enlarged from base (Fig. 6).



Figures 1–16. Front view of head, punctation omitted. Figure 11. Mandible, side view. Figures 2, 9, 13. Propodeal enclosure. Figures 3, 12. Apical forewing venation (arrow indicates second recurrent vein). Figures 4, 16. Clypeal apex (silvery setae omitted) and mandible dentition. Figures 5, 7, 14. Flagellum in profile. Figures 6, 8, 15. Midbasitarsus in profile. Male figures indicated and based on paratypes, remainder are based on female holotypes. Illustrations not drawn to scale.

Diagnosis.—*Cemonus bocae* NEW SPECIES is easily identified in the female by the peculiar retracted clypeus (Fig. 1). Both sexes have a vertex dimple. The male of *C. grinnelli* (Rohwer) is quite similar to male *C. bocae* in clypeal shape and in conformation of the propodeal enclosure. However, in *C. bocae* the vertex

dimple, more strongly serrate flagellum, and straight midbasitarsus are diagnostic. Compare Figs. 5 with 7, 6 with 8, and 2 with 9 for these contrasts.

Material Examined.—See types.

Pemphredon menkei, NEW SPECIES
Figs. 10–16

Types.—Female holotype. MARYLAND. *MONTGOMERY Co.:* Colesville, 15 Sep 1974, A. S. Menke. Holotype deposited in the Bohart Museum of Entomology, University of California, Davis. Paratypes: 9 males, 12 females, data: DISTRICT OF COLUMBIA. Washington, 15 May 1944, G. E. Bohart, 5 males. MARYLAND. *MONTGOMERY Co.:* same locale as holotype, various dates from 21 Sep 1974 to 8 May 1976, A. S. Menke, 3 males, 9 females; Plumber's Island, 13 Jun 1961, K. V. Krombein, 1 male. MINNESOTA. *HUBBARD Co.:* Park Rapids, 18 Jul 1958, A. Raske, 1 female. VIRGINIA. *FAIRFAX Co.:* Black Pond, 21 Jun 1923, R. A. St. George, 1 female. *HOCKING Co.:* (no locale) 20 Aug (no year), D. J. & J. N. Knull, 1 female. (Paratypes to be distributed in the future).

Female.—Holotype length 8 mm. Wings uniformly dusky. Pubescence pale, moderate. Punctation fine and close on frons, becoming sparse on mostly polished vertex, scutal punctures medium-sized but well separated on shagreened surface, coarse in front and fine behind on mesopleuron, propodeal side polished in front, followed by moderate punctation. Mandible evenly tridentate dorsally, apex bidentate, lower tooth enlarged and flattened (Figs. 10, 11); clypeus apicomedially with 3 sharp teeth (Fig. 10); propodeal enclosure reticulate on basal two-thirds, limited posteriorly by a longitudinally shagreened arc (Fig. 13), propodeum posteriorly finely and closely reticulate; pygidial plate with indistinct edges, slightly wedge-shaped, about 3× as long as broad.

Male.—Length 7 mm. Wings, color, punctation and sculpture as in female. Facial pubescence dense, silvery. Mandible evenly tridentate (Fig. 16); clypeal apex weakly tridentate apicomedially (Fig. 16); midbasitarsus slightly bowed in profile, enlarged in distal one-half (Fig. 15); flagellomeres moderately convex on III–VII (Fig. 14).

Diagnosis.—*Pemphredon menkei* NEW SPECIES is similar to *P. nearctica* Kohl, sharing similar clypeal dentition, mandibular structure, and punctation in general. The principal difference is the reticulate propodeal enclosure of *P. menkei* (Fig. 13) rather than the longitudinal ridging of *P. nearctica.* This character holds up well in the type series of *P. menkei* and approximately 150 specimens of *P. nearctica* that I have seen. Another more subtle, but constant, difference is the less distinctly margined pygidial plate of female *P. menkei.* The species is named for the collector, a well-known Hymenopterist, and my friend.

Material Examined.—See types.

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